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Lok, Si
Jaspers, Stephen R.

<120> Insulin Homolog Polypeptide Zins4

<130> 00-18

<150> US 60/188.544

<151> 2000-03-10

<160> 13

<170> FastSEQ for Windows Version 4.0

 $\langle 210 \rangle$ 1

<211> 429

<212> DNA

<213> Homo sapiens

 $\langle 220 \rangle$

<221> CDS

<222> (1)...(429)

<400> 1

atg gcc agg tac atg ctg ctg ctg ctc ctg gcg gta tgg gtg ctg acc 48
Met Ala Arg Tyr Met Leu Leu Leu Leu Leu Ala Val Trp Val Leu Thr
1 5 10 15

ggg gag ctg tgg ccg gga gct gag gcc cgg gca gcg cct tac ggg gtc 96
Gly Glu Leu Trp Pro Gly Ala Glu Ala Arg Ala Ala Pro Tyr Gly Val
 20 25 30

agg ctt tgc ggc cga gaa ttc atc cga gca gtc atc ttc acc tgc ggg 144
Arg Leu Cys Gly Arg Glu Phe Ile Arg Ala Val Ile Phe Thr Cys Gly
35 40 45

ggc tcc cgg tgg aga cga tca gac atc ctg gcc cac gag gct atg gga 192
Gly Ser Arg Trp Arg Arg Ser Asp Ile Leu Ala His Glu Ala Met Gly
50 55 60

gat acc ttc ccg gat gca gat gct gat gaa gac agt ctg gca ggc gag 240
 Asp Thr Phe Pro Asp Ala Asp Ala Asp Glu Asp Ser Leu Ala Gly Glu
 65 70 75 80

ctg gat gag gcc atg ggg tcc agc gag tgg ctg gcc ctg acc aag tca 288
 Leu Asp Glu Ala Met Gly Ser Ser Glu Trp Leu Ala Leu Thr Lys Ser
 85 90 95

ccc cag gcc ttt tac agg ggg cga ccc agc tgg caa gga acc cct ggg 336
 Pro Gln Ala Phe Tyr Arg Gly Arg Pro Ser Trp Gln Gly Thr Pro Gly
 100 105 110

gtt ctt cgg ggc agc cga gat gtc ctg gct ggc ctt tcc agc agc tgc 384
 Val Leu Arg Gly Ser Arg Asp Val Leu Ala Gly Leu Ser Ser Ser Cys
 115 120 125

tgc aag tgg ggg tgt agc aaa agt gaa atc agt agc ctt tgc tag 429
 Cys Lys Trp Gly Cys Ser Lys Ser Glu Ile Ser Ser Leu Cys *
 130 135 140

<210> 2

<211> 142

<212> PRT

<213> Homo sapiens

<400> 2

Met Ala Arg Tyr Met Leu Leu Leu Leu Leu Ala Val Trp Val Leu Thr
 1 5 10 15
 Gly Glu Leu Trp Pro Gly Ala Glu Ala Arg Ala Ala Pro Tyr Gly Val
 20 25 30
 Arg Leu Cys Gly Arg Glu Phe Ile Arg Ala Val Ile Phe Thr Cys Gly
 35 40 45
 Gly Ser Arg Trp Arg Arg Ser Asp Ile Leu Ala His Glu Ala Met Gly
 50 55 60
 Asp Thr Phe Pro Asp Ala Asp Ala Asp Glu Asp Ser Leu Ala Gly Glu
 65 70 75 80
 Leu Asp Glu Ala Met Gly Ser Ser Glu Trp Leu Ala Leu Thr Lys Ser
 85 90 95
 Pro Gln Ala Phe Tyr Arg Gly Arg Pro Ser Trp Gln Gly Thr Pro Gly
 100 105 110

Val	Leu	Arg	Gly	Ser	Arg	Asp	Val	Leu	Ala	Gly	Leu	Ser	Ser	Ser	Cys
		115					120					125			
Cys	Lys	Trp	Gly	Cys	Ser	Lys	Ser	Glu	Ile	Ser	Ser	Leu	Cys		
	130					135						140			

<210> 3
 <211> 14
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Cysteine motif

<221> VARIANT
 <222> (3)...(13)
 <223> Each Xaa is independently any amino acid residue
 except cysteine.

Leu	Cys	Gly	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Cys
1				5					10				

<210> 4
 <211> 15
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Motif

<221> VARIANT
 <222> (3)...(5)
 <223> Each Xaa is independently any amino acid residue
 except cysteine.

<221> VARIANT
 <222> (4)...(14)
 <223> Each Xaa is independently any amino acid residue
 except cysteine.

<400> 4

Cys Cys Xaa Xaa Xaa Cys Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Cys
 1 5 10 15

<210> 5

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Motif

<221> VARIANT

<222> (2)...(4)

<223> Each Xaa is independently any amino acid residue
 except cysteine.

<400> 5

Arg Xaa Xaa Xaa Arg
 1 5

<210> 6

<211> 426

<212> DNA

<213> Artificial Sequence

<220>

<223> Degenerate polynucleotide sequence encoding the
 polypeptide of SEQ ID NO:2.

<221> variation

<222> (1)...(426)

<223> Each N is independently A, T, G, or C.

<400> 6

atggcnmgnt	ayatgytnyt	nytnytnytn	gcngtntggg	tnytnacngg	ngarytntgg	60
ccnggngcng	argcnmgngc	ngcncntay	ggngtnmgny	tntgyggngm	ngarttyath	120
mgngcngtna	thttyacntg	yggnggnwsn	mgntggmgm	gnwsngayat	hytngcncay	180
gargcnatgg	gngayacntt	yccngaygcn	gaygcngayg	argaywsnyt	ngcnggngar	240
ytngaygarg	cnatgggnws	nwsngartgg	ytngcnytna	cnaarwsncc	ncargcntty	300
taymgnggnm	gnccnwsntg	gcarggnacn	ccnggngtny	tnmgnggnws	nmgngaygtn	360

ytngcnggny tnwsnwsnws ntgytgjaar tggggntgyw snaarwsnga rathwsnwsn 420
ytntgy 426

<210> 7
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Oligonucleotide ZC9736

<400> 7
ccatacccct gaccctgtt gagat 25

<210> 8
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Oligonucleotide ZC9740

<400> 8
cagaggttcc ctgataccca cacat 25

<210> 9
<211> 55
<212> DNA
<213> Artificial Sequence

<220>
<223> Exon 1 sense oligonucleotide primer

<400> 9
tgaagaaggt ctcgaattcg tcgacaccat ggccaggtac atgctgctgc tgctc 55

<210> 10
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Exon 1 antisense oligonucleotide primer

<400> 10

tgaagaaggt ctcactccca tagcctcgtg ggccaggatg tctga

45

<210> 11

<211> 41

<212> DNA

<213> Artificial Sequence

<220>

<223> Exon 2 sense oligonucleotide primer

<400> 11

tgaagaaggt ctcaggagat accttcccgg atgcagatgc t

41

<210> 12

<211> 52

<212> DNA

<213> Artificial Sequence

<220>

<223> Exon 2 antisense oligonucleotide primer

<400> 12

tgaagaaggt ctctctagaa ctctagcaaa ggctactgat ttcacttttg ct

52

<210> 13

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> conserved motif

<221> VARIANT

<222> (1)...(4)

<223> Xaa = Any Amino Acid

<400> 13

Arg Xaa Xaa Arg

1